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GLOBALIZATION AND FIREARMS: A PUBLIC HEALTH PERSPECTIVE

A Policy Paper Submitted to the CCFPD
by

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Fall 2000

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Globalization and Firearms: A Public Health Perspective

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- firearms
- small arms
- injury prevention
- globalization

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Abstract:
Violence has been identified as a global health problem by the World Health Organization. Weapons, particularly firearms, play a significant role in fueling that problem, accounting for more than 500,000 deaths each year. Based on a review of the literature and available empirical data on firearms mortality and morbidity, this paper will describe the effects of arms availability on health as well as on individual security, human rights, and economic growth. It will also examine the links between access to firearms and these effects in a variety of contexts. The paper will also examine the sources of weapons supply and the ways in which recent changes in the global manufacture, supply and marketing of firearms have exacerbated the problem. Finally, it will review the elements of a global strategy to reduce these effects.

1. INTRODUCTION

Violence has been identified as a pandemic by the World Health Organization (1). Weapons, and particularly firearms, play a significant role in violence in countries which are engaged in military conflicts (2) as well as countries which are considered peaceful. (3) Although the surveillence data is uneven at best, the total mortality from firearms is believed to exceed 500,000 deaths per year worldwide (see appendix 1). (4) One of the most striking themes to emerge from recent explorations of the health effects of weapons, whether in the context of peace or conflict, or developing or developed societies, is that increased arms availability fuels and sustains violence. As Robin Coupland, a surgeon with the International Committee of the Red Cross wrote:

> Weapons are bad for people's health... Yet health professionals have been slow to recognize that the effects of weapons are, by design, a health issue, and moreover constitute a global epidemic mostly affecting civilians. (5)

This paper will focus on exploring the global health effects of firearms including handguns, rifles, shotguns and military weapons. "Small arms" have been defined in many ways, but for the purposes of this paper will be considered synonymous with firearms. The UN Panel of Governmental Experts on Small Arms defined them as: "Revolvers and self-loading pistols; rifles and carbines; submachine-guns; assault rifles; light machine guns". (6)

Globalization has been examined in relation to the trade and promotion of dangerous commodities and its effects on health (7) (8) Globalization is defined as "the process of increasing economic, political and social interdependence and global integration that takes place as capital, traded goods, persons, concepts, images, ideas and values diffuse across state boundaries. (8) Globalization is shaping the diffusion of firearms internationally at the same time it is creating opportunities for global inter-sectoral action "to promote and protect human health". (9)

2. MATERIALS AND METHODS

Despite the significant burden that firearms represent on an international basis, there have been relatively few efforts to examine this as a global problem. Research examining the international context of firearms death and injury is limited. The United Nations International Study of Firearms Regulation collected data for over 60 countries (10) and has published an update on the internet. The Centres for Disease Control sponsored two studies - one survey of deaths of children in 24 industrialized countries (11) and another on deaths in high and middle income countries. (3). There have been other studies of industrialized countries (12) (13) and some comparative research (14) (15) and there have been some efforts to examine the problem in conflict zones (63) as well as in particular countries (3) (16) (17) (18). Other papers have discussed the concept of globalization in the context of health (8) but they do not address the issue of firearms. Work on the culture of violence which explores global diffusions and markets is also limited (19). Similarly, there are many studies examining aspects of the licit and illicit international arms trade (20) (21) (22) (23) (24) but they tend to define the problem in terms of the proliferation of weapons rather than the

human effects . Little effort has been made to integrate this research or to examine the implications of the research or a global strategy for intervention.

This paper builds on published empirical data, a review of literature published to September 1999 and electronically indexed on Medline and other electronic databases coupled with the reports and recommendations of a number of meetings involving non-governmental organizations and governments.

3. FIREARMS AND SMALL ARMS: A GLOBAL PROBLEM

3.1. Mortality and Morbidity

While data collection on firearms death and injury is incomplete, data regarding armed conflicts is even more fragmented. (5) Moreover, the deaths in armed conflicts are not typically differentiated according to the instrument of death as they are in other contexts. A recent study claimed that in most conflicts underway, light weapons (handguns, rifles, shotguns, mortars and other small arms) are a significant cause of both civilian and combatant deaths. Often the data regarding these deaths is less detailed in terms of the profile of victims. Nevertheless, a large percentage are civilians, conservatively estimated by the International Committee of the Red Cross at more than 35%. (2) (26)

It has been estimated that 3 million people have been killed with small arms in conflict over the past 10 years, about 300,000 per year.(27) What is less well-known is that a comparable number, 200,000 per year, are killed with firearms in murder, suicide and "accidents", and the death rate in industrialized countries - in "peace" - is also high (5). Many of these deaths are preventable.(17) In some contexts, for every death there are additional injuries requiring hospitalization. In Brazil, for example there are almost 10 times as many reported firearm injuries as fatalities while in Canada the reported mortality and injury rates are roughly equivalent.(10) This may be related to the context in which the death and injury occurs: in Brazil homicide is the principal problem while in Canada it is suicide. Fatality rates for suicide with firearms tend to be higher than for attempted homicide. Levels of firearms ownership and death rates also vary significantly. However, where other factors remain constant, the level of firearms death tends to vary with levels of firearms ownership in high income and industrialized countries. (12) (13)

From a health perspective, the constructions of "conflict" and "crime" are not particularly meaningful or useful: the focus is the protection of human life within the context of human rights and humanitarian law. (28) While much has been made of the decline in political violence in South Africa since the end of apartheid, the toll of overtly "political" violence is dwarfed by the costs of other forms of violence: 15,000 people were killed from 1990 - 1998 in acts deemed "political" (27) while 25,000 South Africans were murdered in 1997 alone (10) It is not the rate of crime but the accompanying violence that is most striking: the murder rate is 10 times the international average and increased more than 87% between 1987 and 1994.(29) The violence is fueled by access to firearms: 41% of murders involve firearms.(10)

3.2. Regional Diversity

The framing of the problem and the priorities must accommodate regional needs and contexts. In some contexts, conflict is a priority (e.g. Horn of Africa). In others, crime is the most compelling problem (e.g. Brazil). In others (e.g. Canada, Finland) suicide and injury prevention is critical. And in many contexts within the newly-democratizing and economic-transitioning world, (e.g. South Africa and former Soviet republics) conflict and crime are inseparable. The characteristics of the problem varies from region to region: Studies that have been undertaken in South Asia (30) South Africa, (20) Central America (21) and specific countries have reinforced the importance of reducing availability of weapons.

3.3. Vulnerable Populations

The costs among vulnerable populations are particularly high in both industrialized and developing contexts. Women are seldom users of firearms but are often victims both in the context of war and in domestic violence. Guns figure prominently in the cycle of violence against women and children whether in Canada, Australia or South Africa.(31)(32) (33) (34) The patterns of weapons use in domestic violence are remarkably consistent across many cultures. In many developed countries, firearms are a leading cause of mortality among children and youth (11) and these groups represent a large percentage of the victims of conflict (35), both as combatants and casualties. (36) A number of studies have revealed that the poor are more likely to be victims of violence. (37)

3.4. Small/Firearm Violence and Human Rights and Governance

The reinstatement of social and political institutions in a post conflict scenario is a difficult process and the reconstruction of social institutions, specifically the implementation of a criminal justice and law enforcement's structure, is essential to sustainable peace.(38) The continued availability of weapons often produces other lasting consequences such as the breakdown of civil order and dramatic increases in lawlessness, banditry and illicit drug trafficking. Small arms can change the balance of power and may raise the level of violence. Even if in the short term their use is for self-defense the long term effect may be to limit if not negate other ways of addressing conflict resolution by peaceful means.(39) In Central America, for example, the UN has been very successful in peacekeeping in the area but the proliferation of light weapons presents challenges to long term stability and reconciliation. (21) Criminal violence in South Africa has been defined as "the greatest threat to human rights" facing the young democracy.(40)

3.5. Firearm Violence and Sustainable Development

Violence is multifaceted. Victimization effects are measured not just in terms of mortality and morbidity figures but also in terms of secondary victimization, effects on the quality of life, the costs of services, the economic value of lost productivity, the impacts on property values, the disruption of basic human services, the undermining of governance, the effects on investment, on business and on tourism and the inter-relations among them. Estimates of the cost of Southern Africa's wars over the past two decades reach almost $45 billion (41) arguably, one of the greatest threats to its economic and social development. In Latin America, criminal violence dwarfs political violence and has a huge impact on individual security, economic development and governance. The economic costs of violence, including costs of policing as well as the value of life lost, have been estimated to consume 14% of GDP. In Brazil 10% of GDP is consumed by violence but in Colombia the figure rises to 25%.(25) Firearms figure prominently, accounting for over 70% of homicides in Columbia and 88% of homicides in Brazil.(10) Even in developed countries, the economic costs of violence are staggering. In Canada, the costs of firearms death and injury (including murder, suicide and unintentional injuries) have been estimated at 6.6 billion dollars per year.(15) In addition to the costs measured in terms of the economic value of lost life, violence in the US diverts health, policing and social resources from other problems.

Violence and the prevalence of weapons also create psychological stress that fuels other health problems and creates insecurity. In the United States a 1996 survey found respondents 65 and older living in unsafe neighborhoods were less physically active than those living in safer areas. (42) In Canada, 50% of women indicated that they were concerned that they or a member of their family might be injured with a firearm. (43) Arms infested environments yield observable symptoms of post-traumatic stress disorder, such as overwhelming anxiety and a lack of motivation. Armed robberies also have a whole range of consequences for the victims' health. (44)

Increased weapon availability is deeply affecting male adolescents who are physiologically predisposed to high risk behavior. Relief workers have noted increases in the number of common thieves who are armed and the number of armed military and police personnel who are under the influence of alcohol or drugs and carrying small arms.(45) But even where weapons carrying behaviors are endemic research shows that the youth often carrying firearms would prefer to live in a society without them.(25)

Other secondary effects include problems related to the blood supply. Not only are blood availability and transfusion key issues in developing countries, but emergency responses to large scale violence often do not accommodate careful testing for HIV and result in additional problems. (41) (5)

Finally, the proliferation of weapons and the production of those weapons and ammunition have been linked to a wide range of environmental and health impacts.(46)

3.6. Diversion and Disruption of Health Care Resources

Violence has been identified as a major impediment to the provision of basic health care as well as diverting resources from other health and social services. In South Africa, scarce hospital resources are absorbed in dealing with violence and health care personnel are increasingly themselves the target of violence. Even hospital wards are not safe.(47) In the US the number of deaths and attendant costs are estimated to be $495 (US) per resident compared to only $195 per resident in Canada . Treating firearms injuries absorbed considerable emergency room resources. (15)

Many field personnel have observed that more injured victims die during transport than at the treatment facilities. The medical transportation infrastructure cannot carry the burden created by increased arms proliferation. The widespread availability of small arms among military, militia, criminal elements, youth gangs, and others formerly unarmed is contributing to the limited availability of local personnel who are trained in first aid and wartime surgery.

3.7. Firearms and the Global Culture of Violence

The "culture of violence" is both a cause and an effect of small arms and light weapons availability. A culture of arms possession, created and normalized during the militarization of societies, can contribute to individuals' resorting to a gun as their first instrument for resolving problems. A Cambodian study reported that, in areas with high frequencies of weapons possession, youth threaten people with guns when there is a small traffic jam; those tending cows keep a weapon handy for protection; B 40 rock launchers are used for simple robberies; and women fear that males in the house, especially if intoxicated, will use a gun on a family member. (48) Similar effects have been observed in terms of the militarization of culture in South Africa (49).

The unrestrained proliferation of firearms leads to a cycle of violence which is difficult to break: Fear leads to arming which breeds violence which leads to insecurity which leads to further arming. Firearms undermine long term efforts to build civil society, whether in war zones or inner cities. Much of the demand for guns, particularly military weapons and handguns which serve little practical purpose, may be fueled by violent movies and television which tends to link heroism with guns and violence.(50) The suggestion that there is a link between values and gun violence is not new.

> By our readiness to allow arms to be purchased at will and fired at whim; by allowing our movies and television screens to teach our children that the hero is one who masters the art of shooting and the technique of killing.. we have created an atmosphere in which violence and hatred have become popular pastimes
> - Martin Luther King, November, 1963 (51)

Increasingly, global markets are being dominated by American cultural products which reflect these values. (19)

4. A PUBLIC HEALTH PERSPECTIVE: FOCUS ON THE INSTRUMENT

4.1. Prevention Models

The public health perspective begins by an analysis of the problem to identify the causal links in the chain of events that lead to an injury and breaking them at their weakest point. (52) (53) While a focus on root causes is undeniably important, public health also requires that we focus on the vector/vehicle of injury, here the instrument - the weapon. While firearms do not in themselves always cause violence, regardless of the context - crime, conflict, domestic assault, suicide - they increase its severity, the number of victims and the potential for children to become killers. They also undermine long term efforts to build civil society by fueling internal arms races, whether in war zones or inner cities.

In controlling an illness (malaria) or injury (gunshot wound), we can take preventative action against the *agent* (the parasite in malaria or the force deployed by firing a gun), the *vehicle/vector* (the mosquito bite in malaria; the gun or ammunition it uses) and the *host* (the patient or victim/aggressor). These *agents*, *vehicles* and *hosts* interact in a particular physical or socio-cultural *environment*.(52) (53) The nature of this environment can have an independent effect on the probability of occurrence or seriousness of the traumatic event (and transform a suicide attempt, an assault or an "accident" into either a treatable wound or a fatal injury). Public health experience has shown that the best prevention strategies involve breaking the chain of the causes of the occurrence of an injury at the point where the link in the chain is weakest. (53) Measures that modify the potential vehicle (firearm) or vector (ammunition) of injury or the environment in which they occur have proven more successful than measures where individuals must make an effort or than education alone (54) (55). It is generally acknowledged that the effectiveness of control measures is inversely proportional to the individual effort required to implement them.(56) (53)

Whether we are talking about conflict, domestic violence, "accidental" discharge of a weapon, or the use of a firearm while under the influence of alcohol or drugs, what all these events have in common is access to a firearm by a person who makes inappropriate use of it. The firearm is an important focal point in public health strategies for preventative action.

Peace building, public health and crime prevention all have models for intervention which address the root causes of violence through social development and value building. Once crime, injury or conflict occur, there is recognition of the need to intervene with policing, enforcement, and «treatment». Controls on firearms and firearms are the intermediate step - the reduction of the opportunity for violence or conflict and the reduction of the severity of violent encounters by controlling the supply of firearms. While it is possible to kill with other means, firearms are particularly efficient and are more likely to cause death (57) (58) severe injuries and multiple victims. In addition, firearms enable children who might otherwise lack the strength to kill more readily. The focus on controlling the instrument of violence, injury or death is a well-established public health approach. (59). The measures proposed to prevent crime and conflict involving firearms contain many common elements.

Public health, crime prevention and peacebuilding experts have tended, explicitly or implicitly, to support the accessibility hypothesis - that access to firearms increases the lethality of conflicts and may even precipitate some impulsive violent acts. Factors, such as the social and legislative environment which allow access to a gun, exert a significant influence on the frequency, distribution and growth of deaths and injuries due to firearms.(14) (60) (61) (62)

4.2. Conflict And Post Conflict Contexts

There is limited empirical information on the total mortality and injury caused by firearms in conflict but research shows that when weapons are in circulation, death rates remain high even after conflict has ceased. One study compared the rate of weapons injury five years before the region came under uncontested control and 1 1/2 years after. Weapons injury declined only 20-40%. Another study in Afghanistan examined the circumstances of injuries for six months. One area of the country was at peace, while there were armed conflicts between factions in other regions. There were high rates of non-combat injury, even in the peaceful region: 80 deaths per 100,000, 50% of those were firearm related (63)

Many working on peacebuilding and disarmament argue that the link between violence levels and access to weapons is self evident.(22) (23) (24) When firearms are not removed following conflicts, mortality rates remain high as interpersonal violence substitutes for war. The proliferation of firearms also leads to an escalation of a domestic «arms race» where widespread criminality and the breakdown of legal norms. «The proliferation of these weapons has facilitated an increase in the scale and duration of conflict in many states and in some cases has made the outbreak of armed violence more likely".(64)

4.3. Non-Conflict Contexts

Some researchers maintain that restrictions on firearms have no effect on public safety or may actually reduce safety by reducing the ability of citizens to protect themselves. (65) (66) However, the bulk of the refereed research suggests that there is sufficient evidence to conclude that rates of firearms death and injury are linked to access to firearms and that measures to reduce or control access are effective. (67)(68) (69) (70) Some research projects compare homes where firearms are present to those where they are not and concluded that the risk of homicide and suicide increase dramatically when guns are present, particularly if they are kept loaded and unlocked. (71) (72)

The link between accessibility to firearms and death rates has also been suggested in the international context. One study which examined the link between gun ownership rates and firearms deaths within Canadian provinces, the United States, England/Wales and Australia concluded that 92% of the variance in death rates was explained by access to firearms in those areas.(15) Another review of 13 countries showed that there was a strong correlation between gun ownership and homicide rates and suicide rates with no evidence of substitution.(13) Intentional firearm death rates tend to be associated with firearm ownership rates in high income countries. (12) In another study, based on a standardized survey of victimization in fifty-four countries, gun ownership was significantly related to both the level of robberies and the level of sexual assaults. The relationship between levels of gun ownership and threats/assaults with a gun is also strong.(73)

Several studies have focused on comparing Canada and the United States, two countries which are similar in terms of language, culture and socio-economic conditions. Rates of crime and violence are also comparable but rates of lethal violence are very different. Canada has always had stronger firearms regulation than the United States particularly with respect to handguns. Handguns have been licensed and registered since the 30's and ownership rates are much lower in Canada. While the murder rate without guns in the US is roughly equivalent (1.3 times) that of Canada, the murder rate with handguns is 15 times the Canadian rate (12).

5. FORMAL AND INFORMAL MARKETS FOR FIREARMS

5.1. Overview

The complex structure of licit, illicit and "gray" markets, the links between civilian and military markets and the interplay between domestic and international markets have been the subject of much analysis. (20) (21) (30) (74) Most large manufacturers and brokers serve domestic and international, civilian and military markets.(75) Links, interactions and dependencies between different networks mean that there are no simple solutions to the problems of the proliferation and misuse of these weapons. Legal, covert and illicit networks for large-scale distribution of firearms and ammunition share various transportation and banking infrastructure, as well as personnel, with the other networks creating a complex global system.

Changes in one network may result in changes in the global distribution pattern of firearms and ammunition, and thereby changes in the distribution of risk of death or injury. When one network is constrained, often by political forces, another network may assume some of the distribution function. For example, when arms embargoes are instituted against legal transfers, the covert and illicit networks become operative. On the other hand, when a powerful state has an incentive to contribute to the arming of a particular faction or facilitate internal instability, legal and covert channels become operative, while the illicit networks become subdued or controlled by the powerful state's political agenda. The end of the Cold War relatively eliminated the political agendas of major powers that directed much of the firearms and ammunition trade and constrained the expansion of illicit forces,

while leaving the transportation, storage, banking, and personnel elements of the network intact for private entities to use.(76) Countries in dire need of foreign exchange and revenue, while caught in the tense transition to democracy and free trade, have often facilitated directly or indirectly the transnational movement of arms and ammunition.(77)

Individual state's efforts to constrain legal access to firearms may be undercut by the inadequacy of controls in other countries. This has been observed at a regional level in the United States as well as in the illicit flows of weapons legally purchased in the United States to Canada, Japan and Mexico. It is important, however, to emphasize, that the evidence to date indicates that regulatory efforts are not futile as the growth in informal or illegal markets seldom offsets the decline in legal or formal markets.(78)

At the simplest level, firearms used in crime, injury or conflict, come from three principal sources:

- legal firearms which are misused (by civilians, by states in human rights violations)
- the «gray market» - legal firearms which are sold/stolen illegally (theft/sales from legal owners to «criminals», theft/sales from military to civilians/non-state actors)
- illegally manufactured and traded firearms.

Because of the links between legal supply and illegal purposes, measures which address the supply of weapons are essential. While some types of weapons figure more prominently in some contexts than others (military weapons in conflicts, handguns in crime, long guns in suicide) these vary by region and the boundaries are not sufficiently distinct to address some and not others. .

5.2. Regional Variations

Once again there are significant regional differences in the types of firearms which are misused and the sources of those firearms. For example, in Canada, rifles and shotguns figure prominently in homicide, suicide and accidents. Most of them were at one time legally owned. While handguns figure less prominently, perhaps because of Canada's relatively strict regulation almost half of the handguns recovered in crime are illegally imported.(79) In contrast, in the United States where 41% of households have firearms, there is little smuggling but state to state trafficking is a major problem.(80) Countries such as Brazil, South Africa, Jamaica, India, and Ecuador report significant problems with smuggled firearms and post conflict military weapons.(10) Just as the weapons used in crime come from a variety of sources, firearms move into areas of conflict in a variety of legal, covert and illegal ways including: government and private sales, technology transfers, covert transfers, black market sales, theft of government and privately owned arms and exchanges between criminal and insurgent organizations. In post-conflict, military weapons are a major problem.(81)

5.3. Misuse Of Legally Owned Firearms

Many industrialized countries license firearm owners in an effort to reduce the risk that individuals likely to misuse them will gain access. While these measures do not eliminate misuse, there is compelling evidence that regulations on firearms reduce the extent of the problem. In countries as diverse as Canada, Australia and South Africa, licensing owners and registering firearms has been promoted to help reduce access to firearms by individuals who ought not have them. The police, suicide prevention experts and domestic violence experts in many countries agreed that information about who has what firearms will allow them to take preventative action (82) (83) (84) (85) (86) (87). In addition, licensing and registration increase the accountability of individual firearms owners therefore promoting compliance with safe storage regulations and increasing recognition of the risks and responsibilities of firearms ownership. A system for tracing firearms is essential to enforce licensing provisions and to enforce firearms responsibility as Alberta's Chief Justice Catherine Fraser recently reaffirmed. (88)

5.4. Leakage: The Gray Market

In post-conflict areas, weapons may represent one of the few forms of hard currency and flow from legal sources to illegal purposes. Government agencies are often major suppliers in "the gray market". The «gray market» is defined as that portion of the illegal gun trade where the state is actually involved as a supplier or where the state has turned a blind eye to the problem. Often the motivation is partly commercial and partly political. For example, during the Afghanistan conflict, the CIA funneled weapons to Pakistan in order to ensure that it could mount a defense against the Soviets.(81) Of firearms shipped through a Pakistan-to-Afghanistan pipeline during the Soviet invasion, only some 30% reached their intended destination due to «leakage.».(30)

In the context of crime, it is well-understood that legal weapons acquired for legitimate purposes are often sold or stolen for illegal or illegitimate purposes. Many firearms recovered in crime around the world originate in the United States. The link between legal sources of firearms and illegal purposes is underscored by studies of «straw purchasers» being used to buy guns legally in the US where there are few controls of firearms acquisition and only three states have «one gun a month» restrictions.(90) One of the major problems in Canada, as in other countries, is "leakage" from licit sources to illicit purposes. Another problem revolves around firearms which are bought legally and then sold illegally. Within Canada the old system created huge opportunities for «leakage» because imports were not recorded at time of import but at time of sale. In between the border and the sale point many "disappeared". Traditionally, customs officials were required to record the value of firearms shipments rather than the quantity, type or serial numbers. Firearm theft contributes to illicit trafficking: for example, approximately 3,000 guns are reported missing, lost or stolen each year in Canada, by definition falling into the wrong hands (91) and the figures in other countries are even higher. In South Africa, for example more than 15,000 firearms are reported stolen each year. While much has been made of the flow of post conflict military assault weapons into Africa, the majority of firearms murders are actually committed with handguns. (10)

5.5. Illegal Markets

The illegal or «black market» operates at many levels For example, the Pakistan/Afghanistan region continues to be the largest source of weapons for most militant/criminal groups in South Asia. Surplus weapons from the conflicts in Cambodia, Myanmar, and in some cases, China, are trafficked along with drugs.(30)

Guns initially sold legally in the United States also account for the majority of handguns recovered in crime in Canada (79) and 30% of the guns recovered in crime in Japan. (92) In 1994 foreign governments reported 6238 unlawfully acquired US original firearms to the Bureau of Alcohol Tobacco and Firearms. Over half of them were discovered in Mexico. (93) Trafficked firearms are often acquired by individuals with criminal intent and are often recovered in crimes associated with the illegal drug trade and organized crime. However, in order to identify illegally held firearms, one must be able to identify those that are held legally. In other words, by tracking legal movements of firearms, one can identify those that are illegal.

5.5 Globalization Effects

The end of the Cold War structurally altered the arms trade market by
- reducing political agendas of states and increasing profit incentives for private actors;
- increasing the number of suppliers from an oligopoly to an open market with few constraints on entry;
- increasing the supply of firearms and ammunition available due to manufacturers' and brokers' scramble for new markets and greater market shares, and governments' surplus dumping;

and
- increasing the range of entities to whom arms and ammunition would become more freely available.

In sum, more suppliers and a greater global supply have led to dramatically reduced prices and, hence, greater availability to a larger population. (76)

The erosion of borders in the interests of free trade have contributed to the proliferation of firearms. With improved trade between Canada, the US and Mexico, border checks have been reduced and United States custom officials

acknowledged that they inspect less than one percent of export shipments.(94) The removal of internal trade barriers in the European Union has also reduced the number of check points illegal shipments must pass through.

The firearms industry is large and powerful. It has responded to the maturing and decline of traditional markets in a variety of ways. Manufacturers are constantly exploring ways to expand civilian markets by targeting specific market segments such as women. Like tobacco companies, there is also evidence that some manufacturers are targeting youth in order to sustain markets.(75) There are also efforts to grow the market for guns by promoting the notion that increasing firearms ownership increases safety. Certainly there have been parallels drawn between the gun lobby and the tobacco lobby's efforts to shape the research agenda and to block any regulatory efforts to constrain the free market for firearms. (95)

6. TOWARDS A GLOBAL STRATEGY TO PREVENTION THE MISUSE OF FIREARMS

6.1. Overview

The problem of firearms is a concern for a wide range of constituencies - from police and crime prevention groups, peacebuilding and disarmament groups, public health and women's organizations. While they focus on different aspects of the problem and solutions appropriate to different contexts, the overarching goal many share is the prevention of firearms injury and death in the context of international humanitarian and human rights. (96) Given the complexity of the problem, however, a multifaceted multisectoral strategy is needed.

6.2. Data Collection

The public health approach begins with the analysis of information about a problem. Accurate and accessible surveillance data about the dimension and nature of the problem as well as research about preventive measures and other regulatory or educational initiatives is critical to effective strategies. Official sources in some countries are not accurate. The limitations of current data sources has been identified as a problem in the recent UN study (10). As well, more information about current approaches to firearms regulation and firearms control, research on the effectiveness of different measures etc. are particularly important. There is a need to clearly define and articulate the costs of firearms/ small arms deaths and injuries.

There are many methodological challenges in firearms regulation research. Cross-cultural comparisons are difficult because of the complexity of other variables such as cultural differences and the difficulty of demonstrating causal links. However these methodological challenges are not unique to the firearms regulation issue but affect many other complex crime prevention, public safety and health care issues. Perhaps what is unique to the firearms regulation issue is that a level of rigor and certainty is demanded which is absent in other less political debates. The need for additional information ought not to be an impediment to action.

As Martin Killias said:

"Unfortunately, any further waiting for more convincing evidence may jeopardize more rigorous approaches to gun control, since beyond a certain point significantly reducing the number of guns....becomes a hopeless task." (13)

6.3. Reducing Demand

There is no question that addressing the root causes is critical to peacebuilding (97) (29), public health (98) and crime prevention (99) Whether in the domestic context or in the international context serving basic needs and developing equitable and effective governance is understood to be critical to sustainable peace, health or safety. Firearms figure in the culture of violence which also fuels conflict and crime. Guns are being promoted as symbols of power and freedom. It has been suggested that «gun culture» is largely an American construct (50) which is reinforced by the absence of effective laws and the normalization of violence. It is also promoted through American cultural products which now dominate world entertainment markets. There is also a gender dimension to this given

the role of weapons in the socialization of boys in many cultures (100) (101) It has been suggested that the effects of regulations on firearms are, both direct and indirect because of the important interaction between laws and values: countries with stricter controls send a signal about the acceptability of violence in the same way legislation has been observed to have long term effects on other behaviors such as smoking, drunk driving, and drug . (102)

6.4. Controlling The Supply

Those concerned with crime and injury prevention as well as those focused on peacebuilding recognize the importance of addressing the root causes of violence which fuels the demand for firearms. At the same time, they stress the importance of controlling access to firearms and of controlling the supply of firearms from manufacture through sale, possession and transfer. In addition, there are efforts in the context of crime prevention, injury prevention and peacebuilding to remove unneeded firearms from circulation. There is also recognition of the importance of effective implementation measures. Some of these include:

- consumer product standards and prohibitions on civilian access to certain types of weapons such as military assault weapons (103)
- measures to control access by those who are a risk to themselves or others. This includes licensing measures as well as training and safe storage. (104) (105)
- increased transparency - marking and tracking the manufacture, sales and transfers to reduce illicit trade and improve accountability (106)
- weapons collection programs, amnesties and buy backs to removing unwanted and unneeded firearms from circulation. A number of models have been proposed and implemented with varying success.(107) A comprehensive strategy has been recommended to ensure effective disarmament, demobilization and reintegration. (108)
- implementation and technical assistance - many of the international agreements are merely words on paper if the necessary resources are not provided - particularly to low and middle income countries - to develop the infrastructure to implement them.

6.5. United Nations Initiatives

The link between domestic and international controls is underscored by the recent United Nations Crime Prevention and Criminal Justice Commission's resolution . While it explicitly recognizes national sovereignty, it emphasizes the need for common standards and encourages countries which have not already done so to implement firearms regulations which meet minimum standards in terms of licensing, safe storage and tracking.(110) While these measures are aimed at crime prevention clearly they also have implications for preventing the flow of firearms to areas of conflict. The analogy to domestic firearms controls over access are international codes of conduct or embargoes prohibiting the sale of weapons to countries where there is risk of them being used in grave violations of human rights in the country of final destination.(109)

The United Nations Crime Prevention and Criminal Justice Commission (1998) also passed a resolution, endorsed by over fifty-four countries calling for the development of a legally binding international instrument to address imports, exports and transfers to combat the illicit manufacturing and trafficking of firearms, their parts and components. (111) These initiatives, targeted at "crime prevention", are paralleled in some respects by measures targeted at "arms control, for example, in the UN Small Arms Panel Recommendations (6) and the UN Register of Conventional Arms.

6.6. Coordinating International Intersectoral Efforts

The need for intersectoral action to address serious threats to health has been recognized in many contexts. (7) Current approaches to the problem of firearms tend to be fragmented both within government and without. Peace building, crime prevention and injury prevention efforts tend to pursue parallel tracks internationally and within many regions.

There is also much complementary and potential synergy between these efforts to promote peace, safety and health. While all these groups have particular orientations, competencies and even language, there are opportunities to improve information sharing and cooperation. This includes building capacity and linkages internationally. These linkages are needed horizontally - for example, linking international health, policing and women's organizations - and at the regional level - for example, among local peace building, crime prevention and public health constituencies.

7. CONCLUSION

There is little doubt that firearms represent a significant burden of mortality and morbitity on an international scale and that globalization has fuelled the supply. While strategies to address the problem must respond to local conditions and capacity there are many opportunities for international cooperation on research and on measures to reduce demand and control supply.
To date, however, international health organizations have had limited involvement in the small arms/firearm issue. For some it is a question of "proof". Even though the weight of scientific evidence would seem to suggest a link between access and negative health effect, it is a complex issue. We are reminded of Austin Bradford Hill comments in 1965, on the need to control tobacco products by saying:

> "all scientific work is incomplete - whether it be observational or experimental. All scientific work is liable to be upset or modified by advancing knowledge. That does not confer upon us a freedom to ignore the knowledge we already have, or to postpone the action that it appears to demand at a given time."(112)

While firearms represent a significant burden of injury, some would prefer to avoid the issue because of the strong and vocal forces which oppose any efforts to restrict access to weapons, however modest they may be and even encourage the use of firearms as solutions to the problem of violence. But public health issues -poverty, tobacco or AIDs - are never easy. As Rudolph Virchow said in 1848:

> "medicine is a social science and politics nothing but medicine on a grand scale". (113)

Complex global health problems require multi-layered global solution and firearms are no exception.

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